



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/649,483 | 08/27/2003 | Maximilian Bergmann | TRW(AS)6718 | 5853 |

7590 08/17/2005

TAROLLI, SUNDHEIM, COVELL, TUMMINO & SZABO L.L.P.
 1111 LEADER BLDG.
 526 SUPERIOR AVENUE
 CLEVELAND, OH 44114-1400

| EXAMINER |
|----------|
|----------|

BROWN, DREW J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3616

DATE MAILED: 08/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,483

Applicant(s)

BERGMANN ET AL.

Examiner

Drew J. Brown

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-16 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/14/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: There is a typo on line 18 of page 1. The word “genarator” should be “generator.”

Appropriate correction is required.

Claim Objections

2. Claims 7 and 8 are objected to because of the following informalities: The word “the” should be placed before “part being non-destructed in the activated state” in order to have the proper antecedent basis format. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-11 and 13-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Mizuno et al. (Foreign Pat. No. EP 1 223 085 A2). Mizuno et al. discloses a hybrid gas generator comprising a cylindrical outer housing 3 having a longitudinal axis, a pressure chamber 3C filled with compressed gas and closed by a membrane 9, and a pyrotechnic charge 11 provided for opening the membrane. A sleeve 12 is connected with the peripheral wall of the container and forms a further section of the outer housing, and

Art Unit: 3616

there is an insertion opening 12a that is provided in the sleeve. The charge is accommodated in a bush-shaped charge housing 17, which is arranged outside the pressure chamber and has a longitudinal axis arranged substantially at right-angles to the longitudinal axis of the outer housing and extends into the housing. There is an axial outflow opening 15 provided in the outer housing at one axial end, characterized in that inside the outer housing a separate holding body 21 is provided for retaining the charge housing. The charge housing also has at least one opening 17a that is directed to the membrane. The holding body is fastened to the charge housing and to a part of the gas generator that is not destructed 6 in an activated state of the gas generator. The part being non-destructed in the activated state of the gas generator is also fastened to a container defining the pressure chamber. The holding body engages on the charge housing such that it has an effect against a movement thereof in a direction of at least one of the longitudinal axes. The holding body is also hollow and forms a channel 17C between the charge housing and the membrane so that gas leaving the charge housing is directed to the membrane, and gas will flow through this channel when the gas generator is activated.

The pressure chamber has an end wall (left end of 3 adjacent to 6 according to Fig. 1) facing the charge housing, where the holding body is provided inside the outer housing between the charge housing and the end wall. The pressure chamber is also defined by a bottle-shaped container with a peripheral wall that forms a section of the outer housing of the gas generator, where the container has an end face (left end of 3 adjacent to Fig. 1)

Art Unit: 3616

that forms the end wall adjacent to which the holding body is arranged. The end wall has an opening 6a closed by the membrane, where the membrane is fastened to a membrane holder 24, which in turn is arranged on the end wall. The holding body adjoins the membrane holder, and the membrane holder is considered to be the part being non-destructed in the activated state of the gas generator.

Allowable Subject Matter

5. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Al-Amin et al. (U.S. Pat. No. 6,212,065 B1), Al-Amin (U.S. Pat. No. 6,830,264 B2), Horton et al. (U.S. Pat. No. 6,629,703 B2), Muir et al. (U.S. Pat. No. 6,126,197 A), and Katsuda et al. (U.S. Pat. No. 6,234,521 B1) disclose similar gas generators containing a cylindrical outer housing and a charge housing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J Brown
Examiner
Art Unit 3616

DJB


PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600